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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,002	01/16/2004	Kazuo Saito	0171-1055P	5016
2292 7590 04/18/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER ALEJANDRO, RAYMOND	
			ART UNIT	PAPER NUMBER
			1745	
SHORTENED STATUTORY PERIOD OF RESPONSE		NOTIFICATION DATE	DELIVERY MODE	
3 MONTHS		04/18/2007	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/18/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/758,002	Applicant(s) SAITO ET AL.	
	Examiner Raymond Alejandro	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 2 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/854588.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions and Claim Disposition

1. Applicant's election without traverse of Group I and Species 1a (claims 1 and 3-6) in the reply filed on 04/05/07 is acknowledged.
2. Claims 7-12 have been cancelled.

Priority

3. This application is a division of Application No. 09/854588, filed 05/15/01.
4. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/854588, filed on 05/15/01.

Drawings

5. Figures 1-2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance. *It is noted that applicant discusses the subject matter or features thereof in the Background of the Invention.*

Specification

6. The disclosure is objected to because of the following informalities: the status of the parent application, whether abandoned or patented (and its patent #) must be updated.

Appropriate correction is required.

7. The disclosure is objected to because of the following informalities: the term "*membrem*" is misspelled on page 1, line 29. Assuming that applicant is intending to recite "membrane".

Appropriate correction is required.

8. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

9. The use of the trademark "*New Gramachine 750 Type*" (specification page 12) has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

10. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. *Applicant's intention is directed to a*

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fuel cell separator product/article per se which is also defined as having either a specific particle size distribution or composition.

11. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

12. Claim 5 is objected to because of the following informalities: claim 5 is a multiple dependent claim depending from withdrawn claim 2. Dependency from said claim should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 112

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claims 1 and 3-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

15. Claims 1 and 3-4 recite the limitation "*a fuel cell separator*" in line 4 (of each claim).

There is insufficient antecedent basis for this limitation in the claim. It is noted that claims 1 and 3-4 contain an earlier recitation thereof in line 1.

16. Claims 1 and 3-4 recite the limitation "*the resultant mixture*" in line 6 (of each claim).

There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

20. Claims 1 and 3-6 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Saito et al 2002/0068210.

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The objective of the present claims is aimed at a fuel cell separator wherein the disclosed inventive concept comprises the specific particle size distribution or composition thereof.

As to claims 1 and 3-4:

Saito et al disclose a separator for a fuel cell formed using a base material obtained from a composition comprising at least a binder; a powdery carbon filler (*the conductive material*) having an average particle diameter of 10 nm to 100 μ m and an excellent electroconductivity; and a fiber (*the additive*) (ABSTRACT/P0031, 0021/CLAIM 1).

Disclosed therein is a composition amount ration of the three components is such that the amount of the powdery carbon filler is 200-800 parts by weight (ABSTRACT/P0028-0029). Solvents in the amount of preferably less than 20 % by weight or less based on the total solid contend of the mixture can be used (P0032).

The following examples below show with SUFFICIENT SPECIFICITY the particular composition or particle size distribution:

EXAMPLES 2, Comparative Example 1 and 5 exemplifies fuel cell separators with 800 parts by weight of carbon filler and 100 parts by weight of the binder (EXAMPLE 2); or 358 parts by weight of carbon filler and 100 parts by weight of the binder (Comparative Example 1); or 1000 parts by weight of carbon filler and 100 parts by weight of the binder (Comparative Example 5). *These examples satisfy the specific composition based on parts by mass as recited in claims 3-4.*

Table 3 infra shows the specific particle size distribution of composition used to make the fuel cell separator of Saito et al. Note that a conversion factor of 1000 would convert

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dimensions expressed in “mm” into dimensions expressed in “ μm ”; and that particle sizes of 3.0-5.0 mm (3000-5000 μm) are not present in **EXAMPLE 26**:

TABLE 3

Particle size distribution	0.03–0.1 mm	0.1–3.0 mm	3.0–5.0 mm
Example 26	80%	20%	0%
Example 27	25%	50%	25%
Example 28	0%	20%	80%

EXAMPLES 3-6, 9-13, 15 and 17-23 exemplifies fuel cell separators with gas permeability of less than 30 cc (ml)/m²*day*atm (See **EXAMPLES 3-6, 9-13, 15 and 17-23**)

Examiner’s note: *it is noted that the instant claims are being construed as product-by-process claims (i.e. the specific process steps have not been given patentable weight) and that the product itself does not depend on the process of making it. Accordingly, in a product-by-process claim, the patentability of a product does not depend on its method of production. In that, it is further noted that the product in the instant claims is the same as or obvious over the product of the prior art. In re Thorpe 777 F.2d 695, 698, 227 USPQ 964,966 (Fed Cir. 1985) and MPEP 2113. As a result, the process steps of a product-by-process claim do not impart any significant property or structure to the claimed end product. And, if there is any difference, the difference would have been minor and obvious. Therefore, the present claims are unpatentable over a reference that satisfies the claimed compositional or physical or property or structural limitations, and/or a reference that discloses a product made by a process that reasonably substantially comprises every limitation of the claimed process.*

Determination of patentability of a product-by-process claim is based on the scope of the product itself.

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"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process."

In re Thorpe 777 F.2d 695, 698, 227 USPQ 964,966 (Fed Cir. 1985) and MPEP 2113.

As to claim 5:

As to the method limitation, (i.e. the specific step of drying the granules), it is noted that a method limitation incorporated into a product claim does not patentable distinguish the product because what is given patentably consideration is the product itself and not the manner in which the product was made. Therefore, the patentability of a product is independent of how it was made. As a result, the process steps of a product-by-process claim do not impart any significant property or structure to the claimed end product. And, if there is any difference, the difference would have been minor and obvious.

As to claim 6:

The particle diameter of the powdery carbon filler can be 10 nm to 100 μm in terms of average particle diameter; preferably 20-80 μm (P0023) and can be natural graphite, artificial graphite, expanded graphite (P0022). *The particle range of 20-80 μm fully anticipates the claimed range.*

Therefore, the present claims are anticipated by Saito et al. However, if the claims are not anticipated the claims are obvious as it has been held similar products claimed in product-by-process limitations are obvious *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972) and *In re Fessmann*, 489 F.2d 742, 744 180 USPQ 324, 326 (CCPA 1974); See also *In re Best*, 195 USPQ 430 (CCPA 1977) [prove that prior art products do not necessarily or inherently

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possess characteristics] & *Ex parte Gray*, 10 USPQ2d 1922 (BPAI 1989) [needs to show that the claimed process imparts unexpected property or structure](Refer to MPEP 2113: *Product-by-Process Claims*).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Alejandro whose telephone number is (571) 272-1282. The examiner can normally be reached on Monday-Thursday (8:00 am - 6:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Raymond Alejandro
Primary Examiner
Art Unit 1745


RAYMOND ALEJANDRO
PRIMARY EXAMINER